

MODIS sensor Working Group (MsWG) Meeting Summary

May 20, 2009

Attendance: Gary Toller, Bill Barnes, Aisheng Wu, Junqiang Sun, Gene Eplee, James Kuyper, Hongda Chen, Jack Xiong, Gerhard Meister, Sadashiva Devadiga, Brian Wenny

Scheduled Agenda

Item 1: Recent L1B LUT delivery

- Aqua forward update – 5.0.35.12 (05/14/09) – m1, RVS, Band 21 b1
- Aqua Collection 6 update (05/15/09) – m1, RVS, Band 21 b1

Item 2: Instrument status

- Terra and Aqua MODIS are in nominal operations.

Item 3: MCST recent activities

- Aqua Band 8 discussion with Ocean Group
 - The Ocean Group noticed a recent ~1% decrease in Aqua Band 8 TOA radiance. MCST looked in detail at Earth View trending data and found results consistent with the Ocean group observations using long-term trending of Libyan Desert EV data at several AOI. Aqua uses a 2-point RVS interpolation so the observed radiance decrease could be related to deficiencies in this approach. MCST plans to derive Aqua RVS with the alternative approach (previously only derived for Terra RVS) which uses the lunar and EV long-term trending and allows determination of RVS at multiple AOI.
- Aqua CFPA cooler margin loss update
 - The Aqua cold FPA are no longer able to be maintained at their set temperature (83K) due to radiative cooler margin loss. The CFPA temperature oscillates each orbit with a peak during the dayside. Currently the difference between maximum and minimum temperatures within one orbit is ~0.13K for the SMIR FPA, and ~0.18K for the LWIR FPA. The seasonal oscillation in max/min temperature difference has grown slowly since 2006. At this time no corrective measure is planned, however IOT is prepared to perform an outgas procedure if the opportunity presents itself.
- Collection 6 Status update
 - MCST has completed a new Terra Collection 6 LUT package. Changes from the baseline Collection 6 LUT include a) for TEB an additional timestamp for a0, a2 and Band 21 b1 from the latest WUCD data, b) for QA, B5 D17 has been flagged as inoperable for the mission lifetime as discussed and agreed at the 4/8/09 MsWG, and c) for RSB a detector dependent $\Delta m1$ correction and RVS for Bands 13-16 has been included.

Item 4: Around the Table

- Jack: Senior Review presentations at NASA HQ for Terra and Aqua went well. A decision regarding continued support for both platforms is expected in July. There is currently no schedule for the next MODIS Science Team meeting. MCST will hold an informal calibration workshop sometime in June to present updated instrument performance and Collection 6 information.

Next Meeting: ~June 3, 2009